Docket No.: SH-0063PCTUS

RYU.024

AMENDMENTS TO THE CLAIMS:

2

Please amend the claims as follows:

1. (Original) A method of manufacturing glass base material, which includes; forming

porous glass base material which includes a dopant added core part, and an inner clad layer

surrounding said core part and having a lower refractive index than the core part; transforming said

porous glass base material into clear glass to be provided as a core ingot; heating and elongating

said core ingot in the axial direction in an electric furnace to make a core rod; and forming an outer

clad layer surrounding said core rod.

2. (Orignal) The method of manufacturing glass base material according to claim 1,

wherein the transformed core ingot has the 70 mm or more outer diameter.

3. (Currently Amended) The method of manufacturing glass base material according to

claim 1 or 2, wherein in the core ingot or the core rod, the ratio of the outer diameter of the core

part d to the outer diameter of the inner clad layer D, or d/D is smaller than 0.25.

4. (Currently Amended) The method of manufacturing glass base material according to

claim 1 or 2, wherein the ratio of the outer diameter of the core part d to the outer diameter of the

inner clad layer D, or d/D is smaller than 0.21.

5. (Currently Amended) The method of manufacturing glass base material according to

one out of claims claim 1-4, wherein the thickness of the inner clad layer of the core rod is equal to

or larger than 1 mm.

•Docket No.: SH-0063PCTUS

RYU.024

6. (Currently Amended) The method of manufacturing glass base material according to

one out of claims claim 1-5, wherein for a heat insulator used for the electric furnace is comprised of

3

carbon material containing 810 ppm or less ash.

7. (Currently Amended) The method of manufacturing glass base material according to

one out of claims claim 1-6, wherein a glass tube is welded on the outer surface of the core rod

elongated in the electric furnace.

8. (Currently Amended) The method of manufacturing glass base material according to

one out of claims claim 1-7, wherein glass fine particles are deposited on the outer surface of the

core rod, which is elongated in the electric furnace, to form a porous glass body, before the porous

glass body is transformed into clear glass.

9. (Currently Amended) The method of manufacturing glass base material according to

one out of claims claim 1-8, wherein the outer surface of the core rod is etched with fluorine, then

glass fine particles are deposited to form a porous glass body, and the porous glass body is

transformed into clear glass.

10. (Currently Amended) Glass base material made with the method of manufacturing

glass base material according to one out of claims 1-9. claim 1. Abstract

Provided is the method of manufacturing glass base material having excellent optical properties, in

which the core ingot is easily processed with heat, and includes small amount of OH component;

which increases the transmission loss. The method of manufacturing glass base material includes;

forming porous glass base material which includes a dopant added core part, a (inner) clad layer

surrounding the core part and having a lower refractive index than the core part; transforming the

Docket No.: SH-0063PCTUS

RYU.024

porous glass base material into clear glass to be provided as a core ingot; heating and elongating the

4

core ingot in the axial direction in an electric furnace to make a core rod; and forming an outer clad

layer surrounding the core rod.

11. (New) The method of manufacturing glass base material according to claim 2,

wherein in the core ingot or the core rod, the ratio of the outer diameter of the core part d to the

outer diameter of the inner clad layer D, or d/D is smaller than 0.25.

12. (New) The method of manufacturing glass base material according to claim 2,

wherein the ratio of the outer diameter of the core part d to the outer diameter of the inner clad layer

D, or d/D is smaller than 0.21.

13. (New) The method of manufacturing glass base material according to claim 2,

wherein the thickness of the inner clad layer of the core rod is equal to or larger than 1 mm.

14. (New) The method of manufacturing glass base material according to claim 2,

wherein for a heat insulator used for the electric furnace is comprised of carbon material containing

810 ppm or less ash.

15. (New) The method of manufacturing glass base material according to claim 2,

wherein a glass tube is welded on the outer surface of the core rod elongated in the electric furnace.

16. (New) The method of manufacturing glass base material according to claim 2,

wherein glass fine particles are deposited on the outer surface of the core rod, which is elongated in

Docket No.: SH-0063PCTUS

RYU.024

the electric furnace, to form a porous glass body, before the porous glass body is transformed into

5

clear glass.

17. (New) The method of manufacturing glass base material according to claim 2,

wherein the outer surface of the core rod is etched with fluorine, then glass fine particles are

deposited to form a porous glass body, and the porous glass body is transformed into clear glass.

18. (New) Glass base material made with the method of manufacturing glass base

material according to claim 2.

19. (New) The method of manufacturing glass base material according to claim 3,

wherein the thickness of the inner clad layer of the core rod is equal to or larger than 1 mm.

20. (New) The method of manufacturing glass base material according to claim 3,

wherein for a heat insulator used for the electric furnace is comprised of carbon material containing

810 ppm or less ash.